

IN THE SPECIFICATION

Please amend the paragraph starting on page 11, line 17 as follows:

The drift monitor 130 generates characteristic threads based on the production environment data to identify common characteristics of the wafers involved in the drift. Figure 2 illustrates an exemplary characteristic thread matrix 200 for generating characteristic threads as may be used by the drift monitor 130. In the example illustrated in Figure 2, the drift monitor 130 is analyzing a drift in the thickness of a process layer of silicon dioxide. A sample size of 100 total lots of wafers, with 10 lots being associated with the drift condition, is shown. For clarity and ease of illustration, only a few characteristic threads are illustrated in Figure 2. Specifically, the drift monitor 130 generates threads based on processing tool, metrology tool, incoming wafer profile, and deposition time. In an actual implementation, many more threads may be used. For example, characteristic threads may be based on different processing tools, different operating recipe parameters, and other incoming wafer characteristics.

Please amend the paragraph starting on page 12, line 17 as follows:

The results of the characteristic threads 220 illustrated in Figure 2 show that the processing tools and the metrology tools are not likely to be the source of the drift. The distribution of wafers associated with the drift is roughly equal to the total distribution of wafer processed. Likewise, the deposition time characteristic threads 220 do not show any likely candidates. However, the wafer profile characteristic threads 220 show a possible deviation. Note that of the 25 lots of wafers having a domed profile that were processed, 8 were involved with the process drift. Based on the noted deviation, it is likely that the source of the process drift was related to the domed profile of the incoming wafers. Based on this knowledge,

a corrective action may be to adjust the operating recipes of previous processing tools in the process flow to try to reduce the number of wafers being generated with a domed profile. For example,[[.]] polishing tools typically are prone to polishing with either a center fast or center slow polishing characteristic. The operating parameters of the polishing tools may be adjusted to decrease the tendency to polish with a center slow characteristic.

Please amend the paragraph starting on page 13, line 12 as follows:

Turning now to Figure 3, a simplified flow diagram of a method for distinguishing between sources of process variation in accordance with another embodiment of the present invention is provided. In block 300, a plurality of manufactured items [[are]] is processed in a process flow. In block 310, a set of production environment data associated with each of the manufactured items is stored. In block 320, manufactured items associated with a process drift are identified. In block 330, a plurality of characteristic threads [[are]] is generated based on the production environment data. In block 340, the characteristic threads for at least those manufactured items associated with the process drift are compared. In block 350, at least one potential cause for the process drift is determined based on the comparison of the characteristic threads.